SEQUENCE LISTING

<110> Harberd, Nicholas P
Richards, Donald E
Peng, Jinrong

<120> Genetic Control of Plant Growth and Development

<130> 620-298

<140> US 10/809,945
<141> 2004-03-26

<150> US 09/485,529
<151> 2000-03-01

<150> PCT/GB98/02383
<151> 1998-08-07

<150> GB 9717192.0
<151> 1997-08-13

<160> 108

<170> PatentIn Ver. 2.0

<210> 1
<211> 630
<212> PRT
<213> Triticum aestivum

<220>
<221> SITE
<222> (91)
<223> Xaa is unknown or other amino acid

<220>
<221> SITE
<222> (94)
<223> Xaa is unknown or other amino acid

<220>
<221> SITE
<222> (100)
<223> Xaa is unknown or other amino acid

<220>
<221> SITE
<222> (106)
<223> Xaa is unknown or other amino acid

<220>
<221> SITE
<222> (118)
<223> Xaa is unknown or other amino acid

<220>

<221> SITE
<222> (121)
<223> Xaa is unknown or other amino acid

<220>
<221> SITE
<222> (142)
<223> Xaa is unknown or other amino acid

<220>
<221> SITE
<222> (197)
<223> Xaa is unknown or other amino acid

<220>
<221> SITE
<222> (436)
<223> Xaa is unknown or other amino acid

<220>
<221> SITE
<222> (438)
<223> Xaa is unknown or other amino acid

<220>
<221> SITE
<222> (474)
<223> Xaa is unknown or other amino acid

<220>
<221> SITE
<222> (536)
<223> Xaa is unknown or other amino acid

<220>
<221> SITE
<222> (558)
<223> Xaa is unknown or other amino acid

<220>
<221> SITE
<222> (589)
<223> Xaa is unknown or other amino acid

<220>
<221> SITE
<222> (602)
<223> Xaa is unknown or other amino acid

<220>
<221> SITE
<222> (617)

<223> Xaa is unknown or other amino acid

<400> 1

```
Ile Glu Arg Arg Gly Ser Ser Arg Ile Met Lys Arg Glu Tyr Gln Asp
 1               5                  10                  15

Ala Gly Gly Ser Gly Gly Gly Gly Gly Gly Met Gly Ser Glu Asp Lys
            20                  25                  30

Met Met Val Ser Ala Ala Ala Gly Glu Gly Glu Glu Val Asp Glu Leu
        35                  40                  45

Leu Ala Ala Leu Gly Tyr Lys Val Arg Ala Ser Asp Met Ala Asp Val
    50                  55                  60

Ala Gln Lys Leu Glu Lys Leu Glu Met Ala Met Gly Met Gly Gly Val
65                  70                  75                  80

Gly Ala Gly Ala Ala Pro Asp Arg Gln Val Xaa His Pro Xaa Ala Ala
                85                  90                  95

Asp Thr Val Xaa Tyr Asn Pro Thr Asp Xaa Ser Ser Trp Val Glu Ser
            100                 105                 110

Met Leu Ser Glu Leu Xaa Glu Pro Xaa Pro Pro Leu Pro Pro Ala Pro
        115                 120                 125

Gln Leu Asn Ala Ser Thr Val Thr Gly Ser Gly Gly Tyr Xaa Asp Leu
    130                 135                 140

Pro Pro Ser Val Asp Ser Ser Ser Ser Ile Tyr Ala Leu Arg Pro Ile
145                 150                 155                 160

Pro Ser Pro Ala Gly Ala Thr Ala Pro Ala Asp Leu Ser Ala Asp Ser
                165                 170                 175

Val Arg Asp Pro Lys Arg Met Arg Thr Gly Gly Ser Ser Thr Ser Ser
            180                 185                 190

Ser Ser Ser Ser Xaa Ser Ser Leu Gly Gly Gly Ala Arg Ser Ser Val
        195                 200                 205

Val Glu Ala Ala Pro Pro Val Ala Ala Ala Ala Asn Ala Thr Pro Ala
    210                 215                 220

Leu Pro Val Val Val Val Asp Thr Gln Glu Ala Gly Ile Arg Leu Val
225                 230                 235                 240

His Ala Leu Leu Ala Cys Ala Glu Ala Val Gln Gln Glu Asn Leu Ser
                245                 250                 255

Ala Ala Glu Ala Leu Val Lys Gln Ile Pro Leu Leu Ala Ala Ser Gln
            260                 265                 270

Gly Gly Ala Met Arg Lys Val Ala Ala Tyr Phe Gly Glu Ala Leu Ala
        275                 280                 285
```

```
Arg Arg Val Phe Arg Phe Arg Pro Gln Pro Asp Ser Ser Leu Leu Asp
    290                 295                 300

Ala Ala Phe Ala Asp Leu Leu His Ala His Phe Tyr Glu Ser Cys Pro
305                 310                 315                 320

Tyr Leu Lys Phe Ala His Phe Thr Ala Asn Gln Ala Ile Leu Glu Ala
                325                 330                 335

Phe Ala Gly Cys Arg Arg Val His Val Val Asp Phe Gly Ile Lys Gln
            340                 345                 350

Gly Met Gln Trp Pro Ala Leu Leu Gln Ala Leu Ala Leu Arg Pro Gly
        355                 360                 365

Gly Pro Pro Ser Phe Arg Leu Thr Gly Val Gly Pro Pro Gln Pro Asp
    370                 375                 380

Glu Thr Asp Ala Leu Gln Gln Val Gly Trp Lys Leu Ala Gln Phe Ala
385                 390                 395                 400

His Thr Ile Arg Val Asp Phe Gln Tyr Arg Gly Leu Val Ala Ala Thr
                405                 410                 415

Leu Ala Asp Leu Glu Pro Phe Met Leu Gln Pro Glu Gly Glu Glu Asp
            420                 425                 430

Pro Asn Glu Xaa Pro Xaa Val Ile Ala Val Asn Ser Val Phe Glu Met
        435                 440                 445

His Arg Leu Leu Ala Gln Pro Gly Ala Leu Glu Lys Val Leu Gly His
    450                 455                 460

Arg Ala Pro Pro Cys Gly Pro Glu Phe Xaa Thr Val Val Glu Thr Gln
465                 470                 475                 480

Glu Ala Asn His Asn Ser Gly Thr Phe Leu Asp Arg Phe Thr Glu Ser
                485                 490                 495

Leu His Tyr Tyr Ser Thr Met Phe Asp Ser Leu Glu Gly Gly Ser Ser
            500                 505                 510

Gly Gly Gly Pro Ser Glu Val Ser Ser Gly Ala Ala Ala Ala Pro Ala
        515                 520                 525

Ala Ala Gly Thr Asp Gln Val Xaa Ser Glu Val Tyr Leu Gly Arg Gln
    530                 535                 540

Ile Cys Asn Val Val Ala Cys Glu Gly Ala Glu Arg Thr Xaa Arg His
545                 550                 555                 560

Glu Thr Leu Gly Gln Trp Arg Asn Arg Leu Gly Asn Ala Gly Phe Glu
                565                 570                 575

Thr Val His Leu Gly Ser Asn Ala Tyr Lys Gln Ala Xaa Thr Leu Leu
            580                 585                 590
```

```
Ala Leu Phe Ala Gly Gly Glu Arg Leu Xaa Val Glu Glu Lys Glu Gly
        595                 600                 605

Cys Leu Thr Leu Gly Leu His Thr Xaa Pro Leu Ile Ala Thr Ser Ala
    610                 615                 620

Trp Arg Leu Ala Gly Pro
625                 630


<210> 2
<211> 532
<212> PRT
<213> Arabidopsis thaliana

<400> 2
Met Lys Arg Asp His His His His His Gln Asp Lys Lys Thr Met Met
  1               5                  10                  15

Met Asn Glu Glu Asp Asp Gly Asn Gly Met Asp Glu Leu Leu Ala Val
             20                  25                  30

Leu Gly Tyr Lys Val Arg Ser Ser Glu Met Ala Asp Val Ala Gln Lys
         35                  40                  45

Leu Glu Gln Leu Glu Val Met Met Ser Asn Val Gln Glu Asp Asp Leu
     50                  55                  60

Ser Gln Leu Ala Thr Glu Thr Val His Tyr Asn Pro Ala Glu Leu Tyr
 65                  70                  75                  80

Thr Trp Leu Asp Ser Met Leu Thr Asp Leu Asn Pro Pro Ser Ser Asn
                 85                  90                  95

Ala Glu Tyr Asp Leu Lys Ala Ile Pro Gly Asp Ala Ile Leu Asn Gln
            100                 105                 110

Phe Ala Ile Asp Ser Ala Ser Ser Ser Asn Gln Gly Gly Gly Gly Asp
        115                 120                 125


Thr Tyr Thr Thr Asn Lys Arg Leu Lys Cys Ser Asn Gly Val Val Glu
    130                 135                 140

Thr Thr Thr Ala Thr Ala Glu Ser Thr Arg His Val Val Leu Val Asp
145                 150                 155                 160

Ser Gln Glu Asn Gly Val Arg Leu Val His Ala Leu Leu Ala Cys Ala
                165                 170                 175

Glu Ala Val Gln Lys Glu Asn Leu Thr Val Ala Glu Ala Leu Val Lys
            180                 185                 190

Gln Ile Gly Phe Leu Ala Val Ser Gln Ile Gly Ala Met Arg Lys Val
        195                 200                 205
```

```
Ala Thr Tyr Phe Ala Glu Ala Leu Ala Arg Arg Ile Tyr Arg Leu Ser
    210                 215                 220

Pro Ser Gln Ser Pro Ile Asp His Ser Leu Ser Asp Thr Leu Gln Met
225                 230                 235                 240

His Phe Tyr Glu Thr Cys Pro Tyr Leu Lys Phe Ala His Phe Thr Ala
                245                 250                 255

Asn Gln Ala Ile Leu Glu Ala Phe Gln Gly Lys Lys Arg Val His Val
            260                 265                 270

Ile Asp Phe Ser Met Ser Gln Gly Leu Gln Trp Pro Ala Leu Met Gln
        275                 280                 285

Ala Leu Ala Leu Arg Pro Gly Gly Pro Pro Val Phe Arg Leu Thr Gly
    290                 295                 300

Ile Gly Pro Pro Ala Pro Asp Asn Phe Asp Tyr Leu His Glu Val Gly
305                 310                 315                 320

Cys Lys Leu Ala His Leu Ala Glu Ala Ile His Val Glu Phe Glu Tyr
                325                 330                 335

Arg Gly Phe Val Ala Asn Thr Leu Ala Asp Leu Asp Ala Ser Met Leu
            340                 345                 350

Glu Leu Arg Pro Ser Glu Ile Glu Ser Val Ala Val Asn Ser Val Phe
        355                 360                 365

Glu Leu His Lys Leu Leu Gly Arg Pro Gly Ala Ile Asp Lys Val Leu
    370                 375                 380

Gly Val Val Asn Gln Ile Lys Pro Glu Ile Phe Thr Val Val Glu Gln
385                 390                 395                 400

Glu Ser Asn His Asn Ser Pro Ile Phe Leu Asp Arg Phe Thr Glu Ser
                405                 410                 415

Leu His Tyr Tyr Ser Thr Leu Phe Asp Ser Leu Glu Gly Val Pro Ser
            420                 425                 430

Gly Gln Asp Lys Val Met Ser Glu Val Tyr Leu Gly Lys Gln Ile Cys
        435                 440                 445

Asn Val Val Ala Cys Asp Gly Pro Asp Arg Val Glu Arg His Glu Thr
    450                 455                 460

Leu Ser Gln Trp Arg Asn Arg Phe Gly Ser Ala Gly Phe Ala Ala Ala
465                 470                 475                 480

His Ile Gly Ser Asn Ala Phe Lys Gln Ala Ser Met Leu Leu Ala Leu
                485                 490                 495

Phe Asn Gly Gly Glu Gly Tyr Arg Val Glu Glu Ser Asp Gly Cys Leu
            500                 505                 510
```

Met Leu Gly Trp His Thr Arg Pro Leu Ile Ala Thr Ser Ala Trp Lys
515 520 525

Leu Ser Thr Asn
530

<210> 3
<211> 2709
<212> DNA
<213> Triticum aestivum

<220>
<221> misc_feature
<222> (6)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (11)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (46)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (85)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (107)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (407)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (417)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (430)
<223> n is any nucleotide

<220>

<221> misc_feature
<222> (436)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (448)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (452)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (490)
<223> n is any nucleotide

<220>

<221> misc_feature
<222> (498)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (556)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (562)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (727)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (769)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (1444)
<223> n is any nucleotide

<220>
<221> misc_feature

<222> (1450)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (1556)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (1742)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (1808)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (1900)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (1940)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (1982)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (2438)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (2604)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (2638)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (2681)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (2689)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (2706)
<223> n is any nucleotide

<400> 3
tttcantttc ntccttttt cttcttttc caacccccgg cccccngacc cttggatcca 60
aatcccgaac ccgcccccag aaccnggaac cgaggccaag caaaagnttt gcgccaatta 120
ttggccagag atagatagag aggcgaggta gctcgcggat catgaagcgg gagtaccagg 180
acgccggagg gagcggcggc ggcggtggcg gcatgggttc gtccgaggac aagatgatgg 240
tgtcggcggc ggcgggggag ggggaggagg tggacgagct gctggcggcg ctcgggtaca 300
aggtgcgcgc ctccgacatg gcggacgtgg cgcagaagct ggagcagctc gagatggcca 360
tggggatggg cggcgtgggc gctggcgccg cccctgacga caggttngcc acccgcnggc 420
cgcggacacn gtgcantaca accccacnga cntgtcgtct tgggtcgaga gcatgctgtc 480
ggagctaaan gagccgcngc cgcccctccc gcccgccccg cagctcaacg cctccaccgt 540
cacgggcagc ggcggntact tngatctccc gccctcagtc gactcctcca gcagcatcta 600
cgcgctgcgg ccgatcccct ccccggccgg cgcgacggcg ccggccgacc tgtccgccga 660
ctccgtgcgg gatcccaagc ggatgcgcac tggcgggagc agcacctcgt cgtcatcctc 720
ctcatantcg tctctcggtg ggggcgccag gagctctgtg gtggaggcng ccccgccggt 780
cgcggccgcg gccaacgcga cgcccgcgct gccggtcgtc gtggtcgaca cgcaggaggc 840
cgggattcgg ctggtgcacg cgctgctggc gtgcgcggag gccgtgcagc aggagaacct 900
ctccgccgcg gaggcgctgg tgaagcagat acccttgctg gccgcgtccc agggcggcgc 960
gatgcgcaag gtcgccgcct acttcggcga ggccctcgcc cgccgcgtct tccgcttccg 1020
cccgcagccg gacagctccc tcctcgacgc cgccttcgcc gacctcctcc acgcgcactt 1080
ctacgagtcc tgcccctacc tcaagttcgc gcacttcacc gccaaccagg ccatcctgga 1140
ggcgttcgcc ggctgccgcc gcgtgcacgt cgtcgacttc ggcatcaagc aggggatgca 1200
gtggcccgca cttctccagg ccctcgccct ccgtcccggc ggccctccct cgttccgcct 1260
caccggcgtc ggcccccgc agccggacga gaccgacgcc ctgcagcagg tgggctggaa 1320
gctcgcccag ttcgcgcaca ccatccgcgt cgacttccag taccgcggcc tcgtcgccgc 1380
cacgctcgcg gacctggagc cgttcatgct gcagccggag ggcgaggagg acccgaacga 1440
aganccccgan gtaatcgccg tcaactcagt cttcgagatg caccggctgc tcgcgcagcc 1500
cggcgccctg gaaaaggttc ttgggcaccg tgcgcccccg tgcggcccag aattcntcac 1560
cgtggtggaa acaggaggca aatcacaact ccggcacatt cctggaccgc ttcaccgagt 1620
ctctgcacta ctactccacc atgttcgatt ccctcgaggg cggcagctcc ggcggcggcc 1680
catccgaagt ctcatcgggg gctgctgctg ctcctgccgc cgccggcacg gaccaggtca 1740
tntccgaggt gtacctcggc cggcagatct gcaacgtggt ggcctgcgag ggggcggaac 1800
gcacagancg ccacgagacg ctgggccagt ggcggaaccg gctgggcaac gccgggttcg 1860
agaccgtcca cctgggctcc aatgcctaca agcaggcgan cacgctgctg gcgctcttcg 1920
ccggcggcga acggctacan gtggaagaaa aggaaggctg cctgacgctg gggttgcaca 1980
cnccccccctg attgccacct cggcatggcg cctggccggg ccgtgatctc gcgagttttg 2040
aacgctgtaa gtacacatcg tgagcatgga ggacaacaca gccccggcgg ccgccccggc 2100
tctccggcga acgcacgcac gcacgcactt gaagaagaag aagctaaatg tcatgtcagt 2160
gagcgctgaa ttgcagcgac cggctacgat cgatcgggct acgggtggtt ccgtccgtct 2220
ggcgtgaaga ggtggatgga cgacgaactc cgagccgacc accaccggca tgtagtaatg 2280
taatcccttc ttcgttccca gttctccacc gcctccatga tcacccgtaa aactcctaag 2340
ccctattatt actactatta tgtttaaatg tctattattg ctatgtgtaa ttcctccaac 2400
cgctcatatc aaaataagca cgggccggac tttgttanca gctccaatga gaatgaaatg 2460
aattttgtac gcaaggcacg tccaaaactg ggctgagctt tgttctgttc tgttatgttc 2520
atggtgctca ctgctctgat gaacatgatg gtgcctccaa tggtggcttt gcaattgttg 2580

aaacgtttgg cttgggggac ttgngtgggt gggtgcatgg ggatgaatat tcacatcncc 2640
ggattaaaat taagccatcc cgttggccgt cctttgaata ncttgcccna aacgaaattt 2700
cccccnatc 2709

<210> 4
<211> 10
<212> PRT
<213> Triticum aestivum

<400> 4
Asp Val Ala Gln Lys Leu Glu Gln Leu Glu
1 5 10

<210> 5
<211> 256
<212> PRT
<213> Oryza sativa

<400> 5
Arg Pro Thr Arg Pro Glu Ala Gly Gly Ser Ser Gly Gly Gly Ser Ser
1 5 10 15

Ala Asp Met Gly Ser Cys Lys Asp Lys Val Met Ala Gly Ala Ala Gly
20 25 30

Glu Glu Glu Asp Val Asp Glu Leu Leu Ala Ala Leu Gly Tyr Lys Val
35 40 45

Arg Ser Ser Asp Met Ala Asp Val Ala Gln Lys Leu Glu Gln Leu Glu
50 55 60

Met Ala Met Gly Met Gly Gly Val Ser Ala Pro Gly Ala Ala Asp Asp
65 70 75 80

Gly Phe Val Ser His Leu Ala Thr Asp Thr Val His Tyr Asn Pro Ser
85 90 95

Asp Leu Ser Ser Trp Val Glu Ser Met Leu Ser Glu Leu Asn Ala Pro
100 105 110

Leu Pro Pro Ile Pro Pro Ala Pro Pro Ala Ala Arg His Ala Ser Thr
115 120 125

Ser Ser Thr Val Thr Gly Gly Gly Gly Ser Gly Phe Phe Glu Leu Pro
130 135 140

Ala Ala Ala Asp Ser Ser Ser Ser Thr Tyr Ala Leu Arg Pro Ile Ser
145 150 155 160

Leu Pro Val Val Ala Thr Ala Asp Pro Ser Ala Ala Asp Ser Ala Arg
165 170 175

Asp Thr Lys Arg Met Arg Thr Gly Gly Gly Ser Thr Ser Ser Ser Ser
180 185 190

Ser Ser Ser Ser Ser Leu Gly Gly Gly Ala Ser Arg Gly Ser Val Val

```
        195                 200                 205

Glu Ala Ala Pro Pro Ala Thr Gln Gly Ala Ala Ala Ala Asn Ala Pro
    210                 215                 220

Ala Val Pro Val Val Val Val Asp Thr Gln Glu Ala Gly Ile Arg Leu
225                 230                 235                 240

Val His Ala Leu Leu Ala Cys Ala Glu Ala Val Gln Gln Glu Asn Phe
                245                 250                 255
```

<210> 6
<211> 425
<212> PRT
<213> Triticum aestivum

<400> 6

```
Ala Arg Ser Ser Val Val Glu Ala Ala Pro Pro Val Ala Ala Ala Ala
  1               5                  10                  15

Asn Ala Thr Pro Ala Leu Pro Val Val Val Val Asp Thr Gln Glu Ala
            20                  25                  30

Gly Ile Arg Leu Val His Ala Leu Leu Ala Cys Ala Glu Ala Val Gln
        35                  40                  45

Gln Glu Asn Leu Ser Ala Ala Glu Ala Leu Val Lys Gln Ile Pro Leu
    50                  55                  60

Leu Ala Ala Ser Gln Gly Gly Ala Met Arg Lys Val Ala Ala Tyr Phe
65                  70                  75                  80

Gly Glu Ala Leu Ala Arg Arg Val Phe Arg Phe Arg Pro Gln Pro Asp
                85                  90                  95

Ser Ser Leu Leu Asp Ala Ala Phe Ala Asp Leu Leu His Ala His Phe
            100                 105                 110

Tyr Glu Ser Cys Pro Tyr Leu Lys Phe Ala His Phe Thr Ala Asn Gln
        115                 120                 125

Ala Ile Leu Glu Ala Phe Ala Gly Cys Arg Arg Val His Val Val Asp
    130                 135                 140

Phe Gly Ile Lys Gln Gly Met Gln Trp Pro Ala Leu Leu Gln Ala Leu
145                 150                 155                 160

Ala Leu Arg Pro Gly Gly Pro Pro Ser Phe Arg Leu Thr Gly Val Gly
                165                 170                 175

Pro Pro Gln Pro Asp Glu Thr Asp Ala Leu Gln Gln Val Gly Trp Lys
            180                 185                 190
```

```
Leu Ala Gln Phe Ala His Thr Ile Arg Val Asp Phe Gln Tyr Arg Gly
        195                 200                 205

Leu Val Ala Ala Thr Leu Ala Asp Leu Glu Pro Phe Met Leu Gln Pro
    210                 215                 220

Glu Gly Glu Glu Asp Pro Asn Glu Glu Pro Glu Val Ile Ala Val Asn
225                 230                 235                 240

Ser Val Phe Glu Met His Arg Leu Leu Ala Gln Pro Gly Ala Leu Glu
                245                 250                 255

Lys Val Leu Gly Thr Val Arg Ala Val Arg Pro Arg Ile Val Thr Val
            260                 265                 270

Val Glu Gln Glu Ala Asn His Asn Ser Gly Thr Phe Leu Asp Arg Phe
        275                 280                 285

Thr Glu Ser Leu His Tyr Tyr Ser Thr Met Phe Asp Ser Leu Glu Gly
    290                 295                 300

Gly Ser Ser Gly Gly Gly Pro Ser Glu Val Ser Ser Gly Ala Ala Ala
305                 310                 315                 320

Ala Pro Ala Ala Ala Gly Thr Asp Gln Val Met Ser Glu Val Tyr Leu
                325                 330                 335

Gly Arg Gln Ile Cys Asn Val Val Ala Cys Glu Gly Ala Glu Arg Thr
            340                 345                 350

Glu Arg His Glu Thr Leu Gly Gln Trp Arg Asn Arg Leu Gly Asn Ala
        355                 360                 365

Gly Phe Glu Thr Val His Leu Gly Ser Asn Ala Tyr Lys Gln Ala Ser
    370                 375                 380

Thr Leu Leu Ala Leu Phe Ala Gly Gly Asp Gly Tyr Lys Val Glu Glu
385                 390                 395                 400

Lys Glu Gly Cys Leu Thr Leu Gly Trp His Thr Arg Pro Leu Ile Ala
                405                 410                 415

Thr Ser Ala Trp Arg Leu Ala Gly Pro
            420                 425
```

<210> 7
<211> 623
<212> PRT
<213> Triticum aestivum

<400> 7

```
Met Lys Arg Glu Tyr Gln Asp Ala Gly Gly Ser Gly Gly Gly Gly Gly
  1               5                  10                  15

Gly Met Gly Ser Ser Glu Asp Lys Met Met Val Ser Ala Ala Ala Gly
            20                  25                  30
```

```
Glu Gly Glu Glu Val Asp Glu Leu Leu Ala Ala Leu Gly Tyr Lys Val
         35                  40                  45

Arg Ala Ser Asp Met Ala Asp Val Ala Gln Lys Leu Glu Gln Leu Glu
     50                  55                  60

Met Ala Met Gly Met Gly Gly Val Gly Ala Gly Ala Ala Pro Asp Asp
 65                  70                  75                  80

Ser Phe Ala Thr His Leu Ala Thr Asp Thr Val His Tyr Asn Pro Thr
                 85                  90                  95

Asp Leu Ser Ser Trp Val Glu Ser Met Leu Ser Glu Leu Asn Ala Pro
            100                 105                 110

Pro Pro Pro Leu Pro Pro Ala Pro Gln Leu Asn Ala Ser Thr Ser Ser
        115                 120                 125

Thr Val Thr Gly Ser Gly Gly Tyr Phe Asp Leu Pro Pro Ser Val Asp
    130                 135                 140

Ser Ser Ser Ser Ile Tyr Ala Leu Arg Pro Ile Pro Ser Pro Ala Gly
145                 150                 155                 160

Ala Thr Ala Pro Ala Asp Leu Ser Ala Asp Ser Val Arg Asp Pro Lys
                165                 170                 175

Arg Met Arg Thr Gly Gly Ser Ser Thr Ser Ser Ser Ser Ser Ser Ser
            180                 185                 190

Ser Ser Leu Gly Gly Gly Ala Arg Ser Ser Val Val Glu Ala Ala Pro
        195                 200                 205

Pro Val Ala Ala Ala Ala Asn Ala Thr Pro Ala Leu Pro Val Val Val
    210                 215                 220

Val Asp Thr Gln Glu Ala Gly Ile Arg Leu Val His Ala Leu Leu Ala
225                 230                 235                 240

Cys Ala Glu Ala Val Gln Gln Glu Asn Leu Ser Ala Ala Glu Ala Leu
                245                 250                 255

Val Lys Gln Ile Pro Leu Leu Ala Ala Ser Gln Gly Gly Ala Met Arg
            260                 265                 270

Lys Val Ala Ala Tyr Phe Gly Glu Ala Leu Ala Arg Arg Val Phe Arg
        275                 280                 285

Phe Arg Pro Gln Pro Asp Ser Ser Leu Leu Asp Ala Ala Phe Ala Asp
    290                 295                 300

Leu Leu His Ala His Phe Tyr Glu Ser Cys Pro Tyr Leu Lys Phe Ala
305                 310                 315                 320

His Phe Thr Ala Asn Gln Ala Ile Leu Glu Ala Phe Ala Gly Cys Arg
                325                 330                 335
```

```
Arg Val His Val Val Asp Phe Gly Ile Lys Gln Gly Met Gln Trp Pro
            340                 345                 350

Ala Leu Leu Gln Ala Leu Ala Leu Arg Pro Gly Gly Pro Pro Ser Phe
        355                 360                 365

Arg Leu Thr Gly Val Gly Pro Pro Gln Pro Asp Glu Thr Asp Ala Leu
    370                 375                 380

Gln Gln Val Gly Trp Lys Leu Ala Gln Phe Ala His Thr Ile Arg Val
385                 390                 395                 400

Asp Phe Gln Tyr Arg Gly Leu Val Ala Ala Thr Leu Ala Asp Leu Glu
                405                 410                 415

Pro Phe Met Leu Gln Pro Glu Gly Glu Glu Asp Pro Asn Glu Glu Pro
            420                 425                 430

Glu Val Ile Ala Val Asn Ser Val Phe Glu Met His Arg Leu Leu Ala
        435                 440                 445

Gln Pro Gly Ala Leu Glu Lys Val Leu Gly Thr Val Arg Ala Val Arg
    450                 455                 460

Pro Arg Ile Val Thr Val Val Glu Gln Glu Ala Asn His Asn Ser Gly
465                 470                 475                 480

Thr Phe Leu Asp Arg Phe Thr Glu Ser Leu His Tyr Tyr Ser Thr Met
                485                 490                 495

Phe Asp Ser Leu Glu Gly Gly Ser Ser Gly Gly Gly Pro Ser Glu Val
            500                 505                 510

Ser Ser Gly Ala Ala Ala Ala Pro Ala Ala Ala Gly Thr Asp Gln Val
        515                 520                 525

Met Ser Glu Val Tyr Leu Gly Arg Gln Ile Cys Asn Val Val Ala Cys
    530                 535                 540

Glu Gly Ala Glu Arg Thr Glu Arg His Glu Thr Leu Gly Gln Trp Arg
545                 550                 555                 560

Asn Arg Leu Gly Asn Ala Gly Phe Glu Thr Val His Leu Gly Ser Asn
                565                 570                 575

Ala Tyr Lys Gln Ala Ser Thr Leu Leu Ala Leu Phe Ala Gly Gly Asp
            580                 585                 590

Gly Tyr Lys Val Glu Glu Lys Glu Gly Cys Leu Thr Leu Gly Trp His
        595                 600                 605

Thr Arg Pro Leu Ile Ala Thr Ser Ala Trp Arg Leu Ala Gly Pro
    610                 615                 620
```

<210> 8

<211> 630
<212> PRT
<213> Zea mays

<400> 8
Met Lys Arg Glu Tyr Gln Asp Ala Gly Gly Ser Gly Gly Asp Met Gly
1 5 10 15

Ser Ser Lys Asp Lys Met Met Ala Ala Ala Ala Gly Ala Gly Glu Gln
20 25 30

Glu Glu Glu Asp Val Asp Glu Leu Leu Ala Ala Leu Gly Tyr Lys Val
35 40 45

Arg Ser Ser Asp Met Ala Asp Val Ala Gln Lys Leu Glu Gln Leu Glu
50 55 60

Met Ala Met Gly Met Gly Gly Val Gly Gly Ala Gly Ala Thr Ala Asp
65 70 75 80

Asp Gly Phe Val Ser His Leu Ala Thr Asp Thr Val His Tyr Asn Pro
85 90 95

Ser Asp Leu Ser Ser Trp Val Glu Ser Met Leu Ser Glu Leu Asn Ala
100 105 110

Pro Pro Ala Pro Leu Pro Pro Ala Thr Pro Ala Pro Arg Leu Ala Ser
115 120 125

Thr Ser Ser Thr Val Thr Ser Gly Ala Ala Ala Gly Ala Gly Tyr Phe
130 135 140

Asp Leu Pro Pro Ala Val Asp Ser Ser Ser Ser Thr Tyr Ala Leu Lys
145 150 155 160

Pro Ile Pro Ser Pro Val Ala Ala Pro Ser Ala Asp Pro Ser Thr Asp
165 170 175

Ser Ala Arg Glu Pro Lys Arg Met Arg Thr Gly Gly Gly Ser Thr Ser
180 185 190

Ser Ser Ser Ser Ser Ser Ser Ser Met Asp Gly Gly Arg Thr Arg Ser
195 200 205

Ser Val Val Glu Ala Ala Pro Pro Ala Thr Gln Ala Ser Ala Ala Ala
210 215 220

Asn Gly Pro Ala Val Pro Val Val Val Val Asp Thr Gln Glu Ala Gly
225 230 235 240

Ile Arg Leu Val His Ala Leu Leu Ala Cys Ala Glu Ala Val Gln Gln
245 250 255

Glu Asn Phe Ser Ala Ala Glu Ala Leu Val Lys Gln Ile Pro Met Leu
260 265 270

Ala Ser Ser Gln Gly Gly Ala Met Arg Lys Val Ala Ala Tyr Phe Gly

```
        275                 280                 285

Glu Ala Leu Ala Arg Arg Val Tyr Arg Phe Arg Pro Pro Pro Asp Ser
    290                 295                 300

Ser Leu Leu Asp Ala Ala Phe Ala Asp Leu Leu His Ala His Phe Tyr
305                 310                 315                 320

Glu Ser Cys Pro Tyr Leu Lys Phe Ala His Phe Thr Ala Asn Gln Ala
                325                 330                 335

Ile Leu Glu Ala Phe Ala Gly Cys Arg Arg Val His Val Val Asp Phe
            340                 345                 350

Gly Ile Lys Gln Gly Met Gln Trp Pro Ala Leu Leu Gln Ala Leu Ala
        355                 360                 365

Leu Arg Pro Gly Gly Pro Pro Ser Phe Arg Leu Thr Gly Val Gly Pro
    370                 375                 380

Pro Gln Pro Asp Glu Thr Asp Ala Leu Gln Gln Val Gly Trp Lys Leu
385                 390                 395                 400

Ala Gln Phe Ala His Thr Ile Arg Val Asp Phe Gln Tyr Arg Gly Leu
                405                 410                 415

Val Ala Ala Thr Leu Ala Asp Leu Glu Pro Phe Met Leu Gln Pro Glu
            420                 425                 430

Gly Asp Asp Thr Asp Asp Glu Pro Glu Val Ile Ala Val Asn Ser Val
        435                 440                 445

Phe Glu Leu His Arg Leu Leu Ala Gln Pro Gly Ala Leu Glu Lys Val
    450                 455                 460

Leu Gly Thr Val Arg Ala Val Arg Pro Arg Ile Val Thr Val Val Glu
465                 470                 475                 480

Gln Glu Ala Asn His Asn Ser Gly Thr Phe Leu Asp Arg Phe Thr Glu
                485                 490                 495

Ser Leu His Tyr Tyr Ser Thr Met Phe Asp Ser Leu Glu Gly Ala Gly
            500                 505                 510

Ala Gly Ser Gly Gln Ser Thr Asp Ala Ser Pro Ala Ala Ala Gly Gly
        515                 520                 525

Thr Asp Gln Val Met Ser Glu Val Tyr Leu Gly Arg Gln Ile Cys Asn
    530                 535                 540

Val Val Ala Cys Glu Gly Ala Glu Arg Thr Glu Arg His Glu Thr Leu
545                 550                 555                 560

Gly Gln Trp Arg Ser Arg Leu Gly Gly Ser Gly Phe Ala Pro Val His
                565                 570                 575

Leu Gly Ser Asn Ala Tyr Lys Gln Ala Ser Thr Leu Leu Ala Leu Phe
```

```
            580                 585                 590

Ala Gly Gly Asp Gly Tyr Arg Val Glu Glu Lys Asp Gly Cys Leu Thr
        595                 600                 605

Leu Gly Trp His Thr Arg Pro Leu Ile Ala Thr Ser Ala Trp Arg Val
    610                 615                 620

Ala Ala Ala Ala Ala Pro
625                 630
```

<210> 9
<211> 100
<212> PRT
<213> Zea mays

<400> 9

```
Tyr Gln Asp Ala Gly Gly Ser Gly Gly Asp Met Gly Ser Ser Lys Asp
 1               5                  10                  15

Lys Met Met Ala Ala Ala Ala Gly Ala Gly Glu Gln Glu Glu Glu Asp
            20                  25                  30

Val Asp Glu Leu Leu Ala Ala Leu Gly Tyr Lys Val Arg Ser Ser Asp
        35                  40                  45

Met Ala Gly Leu Glu Gln Leu Glu Met Ala Met Gly Met Gly Gly Val
    50                  55                  60

Gly Gly Ala Gly Ala Thr Ala Asp Asp Gly Phe Val Ser His Leu Ala
65                  70                  75                  80

Thr Asp Thr Val His Tyr Asn Pro Ser Asp Leu Ser Ser Trp Val Glu
                85                  90                  95

Ser Met Leu Ser
            100
```

<210> 10
<211> 123
<212> PRT
<213> Zea mays

<400> 10

```
Ser Ser Lys Asp Lys Met Met Ala Ala Ala Ala Gly Ala Gly Glu Gln
  1               5                  10                  15

Glu Glu Glu Asp Val Asp Glu Leu Leu Ala Ala Leu Gly Tyr Lys Val
            20                  25                  30

Arg Ser Ser Asp Met Ala Asp Val Ala Gln Lys Leu Glu Gln Leu Glu
        35                  40                  45

Met Ala Met Gly Met Gly Gly Val Gly Gly Ala Gly Ala Thr Ala Asp
```

50 55 60

Asp Gly Phe Val Ser His Leu Ser Ser Trp Val Glu Ser Met Leu Ser
65 70 75 80

Glu Leu Asn Ala Pro Pro Ala Pro Leu Pro Pro Ala Thr Pro Ala Pro
85 90 95

Arg Leu Ala Ser Thr Ser Ser Thr Val Thr Ser Gly Ala Ala Ala Gly
100 105 110

Ala Gly Tyr Phe Asp Leu Pro Pro Ala Val Asp
115 120

<210> 11
<211> 138
<212> PRT
<213> Triticum aestivum

<400> 11
Ala Ala Leu Gly Tyr Lys Val Arg Ala Ser Asp Met Ala Asp Val Ala
1 5 10 15

Gln Lys Leu Glu Gln Leu Glu Met Ala Met Gly Met Gly Gly Val Gly
20 25 30

Ala Gly Ala Ala Pro Asp Asp Ser Phe Ala Thr His Leu Ala Thr Asp
35 40 45

Thr Val His Tyr Asn Pro Thr Asp Leu Ser Ser Trp Val Glu Ser Met
50 55 60

Leu Ser Glu Leu Asn Ala Ser Thr Ser Ser Thr Val Thr Gly Ser Gly
65 70 75 80

Gly Tyr Phe Asp Leu Pro Pro Ser Val Asp Ser Ser Ser Ser Ile Tyr
85 90 95

Ala Leu Arg Pro Ile Pro Ser Pro Ala Gly Ala Thr Ala Pro Ala Asp
100 105 110

Leu Ser Ala Asp Ser Val Arg Asp Pro Lys Arg Met Arg Thr Gly Gly
115 120 125

Ser Ser Thr Ser Ser Ser Ser Ser Ser Ser Ser
130 135

<210> 12
<211> 770
<212> DNA
<213> Oryza sativa

<400> 12
gtcgacccac gcgtccggaa gccggcggga gcagcggcgg cgggagcagc gccgatatgg 60
ggtcgtgcaa ggacaaggtg atggcggggg cggcggggga ggaggaggac gtcgacgagc 120

tgctggcggc gctcgggtac aaggtgcggt cgtccgacat ggccgacgtc gcgcagaagc 180
tggagcagct ggagatggcc atggggatgg gcggcgtgag cgcccccggc gccgcggatg 240
acgggttcgt gtcgcacctg gccacggaca ccgtgcacta caacccctcg gacctctcct 300
cctgggtcga gagcatgctt tccgagctca acgcgccgct gcccccctatc ccgccagcgc 360
cgccggctgc ccgccatgct tccacctcgt ccactgtcac cggcggcggt ggtagcggct 420
tctttgaact cccagccgct gccgactcgt cgagtagcac ctacgccctc aggccgatct 480
ccttaccggt ggtggcgacg gctgacccgt cggctgctga ctcggcgagg gacaccaagc 540
ggatgcgcac tggcggcggc agcacgtcgt cgtcctcatc gtcgtcttcc tctctgggcg 600
gtggggcctc gcggggctct gtggtggagg ctgctccgcc ggcgacgcaa ggggccgcgg 660
cggcgaatgc gcccgccgtg ccggttgtgg tggttgacac gcaggaggct gggatccggc 720
tggtgcacgc gttgctggcg tgcgcggagg ccgtgcagca ggagaacttc 770

<210> 13
<211> 1768
<212> DNA
<213> Triticum aestivum

<400> 13
gccaggagct ctgtggtgga ggctgccccg ccggtcgcgg ccgcggccaa cgcgacgccc 60
gcgctgccgg tcgtcgtggt cgacacgcag gaggccggga ttcggctggt gcacgcgctg 120
ctggcgtgcg cggaggccgt gcagcaggag aacctctccg ccgcggaggc gctggtgaag 180
cagataccct tgctggccgc gtcccagggc ggcgcgatgc gcaaggtcgc cgcctacttc 240
ggcgaggccc tcgcccgccg cgtcttccgc ttccgcccgc agccggacag ctccctcctc 300
gacgccgcct tcgccgacct cctccacgcg cacttctacg agtcctgccc ctacctcaag 360
ttcgcgcact tcaccgccaa ccaggccatc ctggaggcgt tcgccggctg ccgccgcgtg 420
cacgtcgtcg acttcggcat caagcagggg atgcagtggc ccgcacttct ccaggccctc 480
gccctccgtc ccggcggccc tccctcgttc cgcctcaccg gcgtcggccc cccgcagccg 540
gacgagaccg acgccctgca gcaggtgggc tggaagctcg cccagttcgc gcacaccatc 600
cgcgtcgact tccagtaccg cggcctcgtc gccgccacgc tcgcggacct ggagccgttc 660
atgctgcagc cggagggcga ggaggacccg aacgaggagc ccgaggtaat cgccgtcaac 720
tcagtcttcg agatgcaccg gctgctcgcg cagcccggcg ccctggagaa ggtcctgggc 780
accgtgcgcg ccgtgcggcc caggatcgtc accgtggtgg agcaggaggc gaatcacaac 840
tccggcacat tcctggaccg cttcaccgag tctctgcact actactccac catgttcgat 900
tccctcgagg gcggcagctc cggcggcggc ccatccgaag tctcatcggg ggctgctgct 960
gctcctgccg ccgccggcac ggaccaggtc atgtccgagg tgtacctcgg ccggcagatc 1020
tgcaacgtgg tggcctgcga gggggcggag cgcacagagc gccacgagac gctgggccag 1080
tggcggaacc ggctgggcaa cgccgggttc gagaccgtcc acctgggctc caatgcctac 1140
aagcaggcga gcacgctgct ggcgctcttc gccggcggcg acggctacaa ggtggaggag 1200
aaggaaggct gcctgacgct ggggtggcac acgcgcccgc tgatcgccac ctcggcatgg 1260
cgcctggccg ggccgtgatc tcgcgagttt tgaacgctgt aagtacacat cgtgagcatg 1320
gaggacaaca cagccccggc ggccgccccg gctctccggc gaacgcacgc acgcacgcac 1380
ttgaagaaga agaagctaaa tgtcatgtca gtgagcgctg aattgcagcg accggctacg 1440
atcgatcggg ctacgggtgg ttccgtccgt ctggcgtgaa gaggtggatg gacgacgaac 1500
tccgagccga ccaccaccgg catgtagtaa tgtaatccct tcttcgttcc cagttctcca 1560
ccgcctccat gatcacccgt aaaactccta agccctatta ttactactat tatgtttaaa 1620
tgtctattat tgctatgtgt aattcctcca accgctcata tcaaaataag cacgggccgg 1680
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1740
aaaaaaaaaa aaaaaaaaaa aaaaaaaa 1768

<210> 14
<211> 2125
<212> DNA
<213> Triticum aestivum

<400> 14
atagagaggc gaggtagctc gcggatcatg aagcgggagt accaggacgc cggagggagc 60
ggcggcggcg gtggcggcat gggctcgtcc gaggacaaga tgatggtgtc ggcggcggcg 120

ggggaggggg aggaggtgga cgagctgctg gcggcgctcg ggtacaaggt gcgcgcctcc 180
gacatggcgg acgtggcgca gaagctggag cagctcgaga tggccatggg gatgggcggc 240
gtgggcgccg gcgccgcccc cgacgacagc ttcgccaccc acctcgccac ggacaccgtg 300
cactacaacc ccaccgacct gtcgtcttgg gtcgagagca tgctgtcgga gctcaacgcg 360
ccgccgccgc ccctcccgcc cgccccgcag ctcaacgcct ccacctcctc caccgtcacg 420
ggcagcggcg gctacttcga tctcccgccc tccgtcgact cctccagcag catctacgcg 480
ctgcggccga tcccctcccc ggccggcgcg acggcgccgg ccgacctgtc cgccgactcc 540
gtgcgggatc ccaagcggat gcgcactggc gggagcagca cctcgtcgtc atcctcctcc 600
tcgtcgtctc tcggtggggg cgccaggagc tctgtggtgg aggctgcccc gccggtcgcg 660
gccgcggcca acgcgacgcc cgcgctgccg gtcgtcgtgg tcgacacgca ggaggccggg 720
attcggctgg tgcacgcgct gctggcgtgc gcggaggccg tgcagcagga gaacctctcc 780
gccgcggagg cgctggtgaa gcagataccc ttgctggccg cgtcccaggg cggcgcgatg 840
cgcaaggtcg ccgcctactt cggcgaggcc ctcgcccgcc gcgtcttccg cttccgcccg 900
cagccggaca gctccctcct cgacgccgcc ttcgccgacc tcctccacgc gcacttctac 960
gagtcctgcc cctacctcaa gttcgcgcac ttcaccgcca accaggccat cctggaggcg 1020
ttcgccggct gccgccgcgt gcacgtcgtc gacttcggca tcaagcaggg gatgcagtgg 1080
cccgcacttc tccaggccct cgccctccgt cccggcggcc ctccctcgtt ccgcctcacc 1140
ggcgtcggcc ccccgcagcc ggacgagacc gacgccctgc agcaggtggg ctggaagctc 1200
gcccagttcg cgcacaccat ccgcgtcgac ttccagtacc gcggcctcgt cgccgccacg 1260
ctcgcggacc tggagccgtt catgctgcag ccggagggcg aggaagaccc gaacgaggag 1320
cccgaggtaa tcgccgtcaa ctcagtcttc gagatgcacc ggctgctcgc gcagcccggc 1380
gccctggaga aggtcctggg caccgtgcgc gccgtgcggc ccaggatcgt caccgtggtg 1440
gagcaggagg cgaatcacaa ctccggcaca ttcctggacc gcttcaccga gtctctgcac 1500
tactactcca ccatgttcga ttcccctcgag ggcggcagct ccggcggcgg cccatccgaa 1560
gtctcatcgg gggctgctgc tgctcctgcc gccgccggca cggaccaggt catgtccgag 1620
gtgtacctcg gccggcagat ctgcaacgtg gtggcctgcg agggggcgga gcgcacagag 1680
cgccacgaga cgctgggcca gtggcggaac cggctgggca acgccgggtt cgagaccgtc 1740
cacctgggct ccaatgccta caagcaggcg agcacgctgc tggcgctctt cgccggcggc 1800
gacggctaca aggtggagga gaaggaaggc tgcctgacgc tggggtggca cacgcgcccg 1860
ctgatcgcca cctcggcatg gcgcctggcc gggccgtgat ctcgcgagtt ttgaacgctg 1920
taagtacaca tcgtgagcat ggaggacaac acagccccgg cggccgcccc ggctctccgg 1980
cgaacgcacg cacgcacgca cttgaagaag aagaagctaa atgtcatgtc agtgagcgct 2040
gaattgcagc gaccggctac gatcgatcgg gctacgggtg gttccgtccg tctggcgtga 2100
agaggtggat ggacgacgaa ctccg 2125

<210> 15
<211> 2255
<212> DNA
<213> Zea mays

<400> 15
tttcgcctgc cgctgctatt aataattgcc ttcttggttt ccccgttttc gccccagccg 60
cttcccccct cccctaccct ttccttcccc actcgcactt cccaaccctg gatccaaatc 120
ccaagctatc ccagaaccga aaccgaggcg cgcaagccat tattagctgg ctagctaggc 180
ctgtagctcc gaaatcatga agcgcgagta ccaagacgcc ggcgggagtg gcggcgacat 240
gggctcctcc aaggacaaga tgatggcggc ggcggcggga gcaggggaac aggaggagga 300
ggacgtggat gagctgctgg ccgcgctcgg gtacaaggtg cgttcgtcgg atatggcgga 360
cgtcgcgcag aagctggagc agctcgagat ggccatgggg atgggcggcg tgggcggcgc 420
cggcgctacc gctgatgacg ggttcgtgtc gcacctcgcc acggacaccg tgcactacaa 480
tccctccgac ctgtcgtcct gggtcgagag catgctgtcc gagctcaacg cgcccccagc 540
gccgctcccg cccgcgacgc cggccccaag gctcgcgtcc acatcgtcca ccgtcacaag 600
tggcgccgcc gccggtgctg gctacttcga tctcccgccc gccgtggact cgtccagcag 660
tacctacgct ctgaagccga tcccctcgcc ggtggcggcg ccgtcggccg acccgtccac 720
ggactcggcg cgggagccca agcggatgag gactggcggc ggcagcacgt cgtcctcctc 780
ttcctcgtcg tcatccatgg atggcggtcg cactaggagc tccgtggtcg aagctgcgcc 840
gccggcgacg caagcatccg cggcggccaa cgggcccgcg gtgccggtgg tggtggtgga 900
cacgcaggag gccgggatcc ggctcgtgca cgcgctgctg gcgtgcgcgg aggccgtgca 960

gcaggagaac ttctctgcgg cggaggcgct ggtcaagcag atccccatgc tggcctcgtc 1020
gcagggcggt gccatgcgca aggtcgccgc ctacttcggc gaggcgcttg cccgccgcgt 1080
gtatcgcttc cgcccgccac cggacagctc cctcctcgac gccgccttcg ccgacctctt 1140
gcacgcgcac ttctacgagt cctgccccta cctgaagttc gcccacttca ccgcgaacca 1200
ggccatcctc gaggccttcg ccggctgccg ccgcgtccac gtcgtcgact tcggcatcaa 1260
gcaggggatg cagtggccgg ctcttctcca ggccctcgcc ctccgccctg gcggcccccc 1320
gtcgttccgg ctcaccggcg tcgggccgcc gcagcccgac gagaccgacg ccttgcagca 1380
ggtgggctgg aaacttgccc agttcgcgca caccatccgc gtggacttcc agtaccgtgg 1440

cctcgtcgcg gccacgctcg ccgacctgga gccgttcatg ctgcaaccgg agggcgatga 1500
cacggatgac gagcccgagg tgatcgccgt gaactccgtg ttcgagctgc accggcttct 1560
tgcgcagccc ggtgccctcg agaaggtcct gggcacggtg cgcgcggtgc ggccgaggat 1620
cgtgaccgtg gtcgagcagg aggccaacca caactccggc acgttcctcg accgcttcac 1680
cgagtcgctg cactactact ccaccatgtt cgattctctc gagggcgccg gcgccggctc 1740
cggccagtcc accgacgcct ccccggccgc ggccggcggc acggaccagg tcatgtcgga 1800
ggtgtacctc ggccggcaga tctgcaacgt ggtggcgtgc gagggcgcgg agcgcacgga 1860
gcgccacgag acgctgggcc agtggcgcag ccgcctcggc ggctccgggt tcgcgcccgt 1920
gcacctgggc tccaatgcct acaagcaggc gagcacgctg ctggcgctct tcgccggcgg 1980
cgacgggtac agggtggagg agaaggacgg gtgcctgacc ctggggtggc atacgcgccc 2040
gctcatcgcc acctcggcgt ggcgcgtcgc cgccgccgcc gctccgtgat cagggagggg 2100
tggttggggc ttctggacgc cgatcaaggc acacgtacgt cccctggcat ggcgcaccct 2160
ccctcgagct cgccggcacg ggtgaagcta cccgggggat ccactaattc taaaacggcc 2220
ccaccgcggt ggaactccac cttttgttcc cttta 2255

<210> 16
<211> 302
<212> DNA
<213> Zea mays

<400> 16
taccaagacg ccggcgggag tggcggcgac atgggctcct ccaaggacaa gatgatggcg 60
gcggcggcgg gagcagggga acaggaggag gaggacgtgg atgagctgct ggccgcgctc 120
gggtacaagg tgcgttcgtc ggatatggcg gggctggagc agctcgagat ggccatgggg 180
atgggcggcg tgggcggcgc cggcgctacc gctgatgacg ggttcgtgtc gcacctcgcc 240
acggacaccg tgcactacaa tccctccgac ctgtcgtcct gggtcgagag catgctgtcc 300
ga 302

<210> 17
<211> 371
<212> DNA
<213> Zea mays

<400> 17
tcctccaagg acaagatgat ggcggcggcg gcgggagcag gggaacagga ggaggaggac 60
gtggatgagc tgctggccgc gctcgggtac aaggtgcgtt cgtcggatat ggcggacgtc 120
gcgcagaagc tggagcagct cgagatggcc atggggatgg gcggcgtggg cggcgccggc 180
gctaccgctg atgacgggtt cgtgtcgcac ctgtcgtcct gggtcgagag catgctgtcc 240
gagctcaacg cgcccccagc gccgctcccg cccgcgacgc cggccccaag gctcgcgtcc 300
acatcgtcca ccgtcacaag tggcgccgcc gccggtgctg gctacttcga tctcccgccc 360

gccgtggact c 371

<210> 18
<211> 416
<212> DNA
<213> Triticum aestivum

<400> 18
gcggcgctcg ggtacaaggt gcgcgcctcc gacatggcgg acgtggcgca gaagctggag 60
cagctcgaga tggccatggg gatgggcggc gtgggcgccg gcgccgcccc cgacgacagc 120
ttcgccaccc acctcgccac ggacaccgtg cactacaacc ccaccgacct gtcgtcttgg 180
gtcgagagca tgctgtcgga gctcaacgcc tccacctcct ccaccgtcac gggcagcggc 240
ggctacttcg atctcccgcc ctccgtcgac tcctccagca gcatctacgc gctgcggccg 300
atcccctccc cggccggcgc gacggcgccg gccgacctgt ccgccgactc cgtgcgggat 360
cccaagcgga tgcgcactgg cgggagcagc acctcgtcgt catcctcctc ctcgtc 416

<210> 19
<211> 725
<212> DNA
<213> Oryza sativa

<220>
<221> misc_feature
<222> (171)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (302)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (427)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (444)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (459)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (711)
<223> n is any nucleotide

<400> 19
acgcgtccgg aagccggcgg gagcagcggc ggcgggagca gcgccgatat ggggtcgtgc 60
aaggacaagg tgatggcggg ggcggcgggg gaggaggagg acgtctacga gctgctggcg 120
gcgctcgggt acaaggtgcg gtcgtccgac atggccgacg tcgcgcagaa nctggagcag 180
ctggagatgg ccatggggat gggcggcgtg agcgcccccg gcgccgcgga tgacgggttc 240
gtgtcgcacc tggccacgga caccgtgcac tacaacccct cggacctctc ctcctgggtt 300
cngagagcat gctttcggag ttaaaggcgc cgttgccccc tatcccgcca ggcgccgccg 360
ggctgcccgc catgctttcc aacttcgtcc actgtcaccg gcggcggtgg tagcggcttc 420
tttgaantcc cagccgctgc cgantcgtcg agtagcacnt acgccctcag gccgatctcc 480
ttaccggtgg tggcgacggc tgacccgtcg gctgctgact cggcgaggga caccaagcgg 540
atgcgcactg gcggcggcag cacgtcgtcg tcctcatcgt cgtcttcctc tctgggcggt 600

ggggcctcgc ggggctctgt ggtggaggct gctccgccgg cgacgcaagg ggccgcggcg 660
gcgaatgcgc ccgccgtgcc ggttgtggtg gttgacacgc aggaggctgg natcgggcct 720
ggtgc 725

<210> 20
<211> 258
<212> PRT
<213> Oryza sativa

<220>
<221> SITE
<222> (57)
<223> Xaa is unknown or other amino acid

<220>
<221> SITE
<222> (143)
<223> Xaa is unknown or other amino acid

<220>
<221> SITE
<222> (148)
<223> Xaa is unknown or other amino acid

<220>
<221> SITE
<222> (250)
<223> Xaa is unknown or other amino acid

<400> 20
Thr Arg Pro Glu Ala Gly Gly Ser Ser Gly Gly Gly Ser Ser Ala Asp
1 5 10 15

Met Gly Ser Cys Lys Asp Lys Val Met Ala Gly Ala Ala Gly Glu Glu
20 25 30

Glu Asp Val Asp Glu Leu Leu Ala Ala Leu Gly Tyr Lys Val Arg Ser
35 40 45

Ser Asp Met Ala Asp Val Ala Gln Xaa Leu Glu Gln Leu Glu Met Ala
50 55 60

Met Gly Met Gly Gly Val Ser Ala Pro Gly Ala Ala Asp Asp Gly Phe
65 70 75 80

Val Ser His Leu Ala Thr Asp Thr Val His Tyr Asn Pro Ser Asp Leu
85 90 95

Ser Ser Trp Val Glu Ser Met Leu Ser Glu Leu Lys Ala Pro Leu Pro
100 105 110

Leu Ile Pro Pro Gly Ala Ala Gly Leu Pro Ala Met Leu Ser Pro Thr
115 120 125

Ser Ser Thr Val Thr Gly Gly Gly Gly Ser Gly Phe Phe Glu Xaa Pro

130 135 140

Ala Ala Ala Xaa Ser Ser Ser Ser Thr Tyr Ala Leu Arg Pro Ile Ser
145 150 155 160

Leu Pro Val Val Ala Thr Ala Asp Pro Ser Ala Ala Asp Ser Ala Arg
165 170 175

Asp Thr Lys Arg Met Arg Thr Gly Gly Gly Ser Thr Ser Ser Ser Ser
180 185 190

Ser Ser Ser Ser Ser Leu Gly Gly Gly Ala Ser Arg Gly Ser Val Val
195 200 205

Glu Ala Ala Pro Pro Ala Thr Gln Gly Ala Ala Ala Ala Asn Ala Pro
210 215 220

Ala Val Pro Val Val Val Val Asp Thr Gln Glu Glu Glu Ala Gly Ile
225 230 235 240

Arg Leu Val His Ala Leu Leu Ala Cys Xaa Glu Ala Val Gln Gln Glu
245 250 255

Asn Phe

<210> 21
<211> 35
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 21
tttgcgccaa ttattggcca gagatagata gagag 35

<210> 22
<211> 35
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 22
gtggcggcat gggttcgtcc gaggacaaga tgatg 35

<210> 23
<211> 35
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 23
catggaggcg gtggagaact gggaacgaag aaggg 35

<210> 24
<211> 35
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 24
cccggccagg cgccatgccg aggtggcaat caggg 35

<210> 25
<211> 35
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 25
ggtatctgct tcaccagcgc ctccgcggcg gagag 35

<210> 26
<211> 35
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 26
atcggccgca gcgcgtagat gctgctggag gagtc 35

<210> 27
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 27
ctggtgaagc agataccctt gc 22

<210> 28
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 28
ctggttggcg gtgaagtgcg 20

<210> 29
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 29
gcaagggtat ctgcttcacc agc 23

<210> 30
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 30
cgcacttcac cgccaaccag 20

<210> 31
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 31
ttgtgatttg cctcctgttt cc 22

<210> 32
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 32
ccgtgcgccc ccgtgcggcc cag 23

<210> 33
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 33
aggctgcctg acgctggggt tgc 23

<210> 34

<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 34
gatcggccgc agcgcgtaga tgc 23

<210> 35
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 35
gatcccgcac ggagtcggcg gacag 25

<210> 36
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 36

tccgacagca tgctctcgac ccaag 25

<210> 37
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 37
ttccgtccgt ctggcgtgaa gagg 24

<210> 38
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 38
aaatcccgaa cccgccccca gaac 24

<210> 39
<211> 24

<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 39
gcgccaatta ttggccagag atag 24

<210> 40
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 40
ggcatgggtt cgtccgagga caag 24

<210> 41
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 41
ttgtcctcgg acgaacccat gccg 24

<210> 42
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 42
gatccaaatc ccgaacccgc cc 22

<210> 43
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 43
gtagatgctg ctggaggagt cg 22

<210> 44
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 44
gtcgtccatc cacctcttca cg 22

<210> 45
<211> 22
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 45
gccagagata gatagagagg cg 22

<210> 46
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 46
tagggcttag gagttttacg gg 22

<210> 47
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 47
cggagtcggc ggacaggtcg gc 22

<210> 48
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 48
cggagaggtt ctcctgctgc acggc 25

<210> 49
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 49
tgtgcaaccc cagcgtcagg cag 23

<210> 50
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 50
gcggcctcgt cgccgccacg ctc 23

<210> 51
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 51
tggcggcgac gaggccgcgg tac 23

<210> 52
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 52
aagaataagg aagagatgga gatggttg 28

<210> 53
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 53
tctgcaacgt ggtggcctgc gag 23

<210> 54
<211> 23
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 54
cccctcgcag gccaccacgt tgc 23

<210> 55
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 55
ttgggtcgag agcatgctgt cggag 25

<210> 56
<211> 27
<212> PRT
<213> Triticum aestivum

<400> 56
Asp Glu Leu Leu Ala Ala Leu Gly Tyr Lys Val Arg Ala Ser Asp Met
1 5 10 15

Ala Asp Val Ala Gln Lys Leu Glu Gln Leu Glu
20 25

<210> 57
<211> 1746
<212> DNA
<213> Triticum aestivum

<220>
<221> misc_feature
<222> (674)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (680)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (786)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (972)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (1038)

<223> n is any nucleotide

<220>
<221> misc_feature
<222> (1130)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (1170)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (1212)
<223> n is any nucleotide

<400> 57
ccccgacggt cgcggccgcg gccaacgcga cgcccgcgct gccggtcgtc gtggtcgaca 60
cgcaggaggc cgggattcgg ctggtgcacg cgctgctggc gtgcgcggag gccgtgcagc 120
aggagaacct ctccgccgcg gaggcgctgg tgaagcagat acccttgctg gccgcgtccc 180
agggcggcgc gatgcgcaag gtcgccgcct acttcggcga ggccctcgcc cgccgcgtct 240
tccgcttccg cccgcagccg gacagctccc tcctcgacgc cgccttcgcc gacctcctcc 300
acgcgcactt ctacgagtcc tgcccctacc tcaagttcgc gcacttcacc gccaaccagg 360
ccatcctgga ggcgttcgcc ggctgccgcc gcgtgcacgt cgtcgacttc ggcatcaagc 420
aggggatgca gtggcccgca cttctccagg ccctcgccct ccgtcccggc ggccctccct 480
cgttccgcct caccggcgtc ggcccccgc agccggacga gaccgacgcc ctgcagcagg 540
tgggctggaa gctcgcccag ttcgcgcaca ccatccgcgt cgacttccag taccgcggcc 600
tcgtcgccgc cacgctcgcg gacctggagc cgttcatgct gcagccggag ggcgaggagg 660
acccgaacga aganccgan gtaatcgccg tcaactcagt cttcgagatg caccggctgc 720
tcgcgcagcc cggcgccctg gaaaaggttc ttgggcaccg tgcgcccccg tgcggcccag 780
aattcntcac cgtggtggaa acaggaggca aatcacaact ccggcacatt cctggaccgc 840
ttcaccgagt ctctgcacta ctactccacc atgttcgatt ccctcgaggg cggcagctcc 900
ggcggcggcc catccgaagt ctcatcgggg gctgctgctg ctcctgccgc cgccggcacg 960
gaccaggtca tntccgaggt gtacctcggc cggcagatct gcaacgtggt ggcctgcgag 1020
ggggcggaac gcacagancg ccacgagacg ctgggccagt ggcggaaccg gctgggcaac 1080
gccgggttcg agaccgtcca cctgggctcc aatgcctaca agcaggcgan cacgctgctg 1140
gcgctcttcg ccggcggcga acggctacan gtggaagaaa aggaaggctg cctgacgctg 1200
gggttgcaca cnccccccctg attgccacct cggcatggcg cctggccggg ccgtgatctc 1260
gcgagttttg aacgctgtaa gtacacatcg tgagcatgga ggacaacaca gccccggcgg 1320
ccgccccggc tctccggcga acgcacgcac gcacgcactt gaagaagaag aagctaaatg 1380
tcatgtcagt gagcgctgaa ttgcagcgac cggctacgat cgatcgggct acgggtggtt 1440
ccgtccgtct ggcgtgaaga ggtggatgga cgacgaactc cgagccgacc accaccggca 1500
tgtagtaatg taatcccttc ttcgttccca gttctccacc gcctccatga tcacccgtaa 1560
aactcctaag ccctattatt actactatta tgtttaaatg tctattattg ctatgtgtaa 1620
ttcctccaac cgctcatatc aaaataagca cgggccggaa aaaaaaaaaa aaaaaaaaaa 1680
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1740
aaaaaa 1746

<210> 58
<211> 332
<212> DNA
<213> Triticum aestivum

<220>
<221> misc_feature
<222> (19)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (33)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (131)
<223> n is any nucleotide

<400> 58
cgcgcaatgc ttaaggtcnc cgcctacttc ggngcaggcc ctcgcccgcc gcgtcttccg 60
cttccgcccg cagccggaca gctccctcct cgacgccgcc ttcgccgacc tcctccacgc 120
gcacttctac nagtcctgcc cctacctcaa gttcgcgcac ttcaccgcca attaggccat 180
cctggaggcg ttcgccggct gccgccgcgt gcacgtcgtc gacttcggca tcaagcaggg 240
gatgcagtgg cccgcacttc tccaggccct cgccctccgt cccggcggcc ctccctcgtt 300
ccgcctcacc ggcgtcggcc ccccgcagcc gg 332

<210> 59
<211> 377
<212> DNA
<213> Triticum aestivum

<220>
<221> misc_feature
<222> (17)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (19)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (20)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (53)

<223> n is any nucleotide

<220>
<221> misc_feature
<222> (61)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (77)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (84)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (137)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (142)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (156)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (162)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (167)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (205)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (212)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (221)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (251)

<223> n is any nucleotide

<220>
<221> misc_feature
<222> (259)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (271)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (273)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (277)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (290)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (306)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (321)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (342)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (345)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (362)
<223> n is any nucleotide

<220>
<221> misc_feature

<222> (367)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (369)
<223> n is any nucleotide

<400> 59
acctccttcg tcgtctntnn ggtgggggcg ccaggagctt atgtggtgga ggntggcccc 60
nccggtcgcg accgcgncct acgngacgcc cgcgctgccg gtcgtcgtgg tcgacacgca 120
ggaggccggg attcggntgg tncacgcgct gctggngtgc gnggagnccg tgcagcagga 180
gaacctctcc gccgcggagg cgctngtgaa gnagataccc ntgctggccg agtcccaggg 240
cggcgagatg ngcaaggtng cagcttactt ngnagangcc ctcgcccgcn gagtgattcc 300
acttancgcc tgcagccgga nagctccgtc ctcgaanccg cnttngccga cctcctccac 360
gngcacntnt acgagtc 377

<210> 60
<211> 211
<212> DNA
<213> Triticum aestivum

<220>
<221> misc_feature
<222> (3)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (34)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (45)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (142)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (176)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (179)
<223> n is any nucleotide

<220>
<221> misc_feature

<222> (185)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (186)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (187)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (188)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (189)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (191)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (197)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (198)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (210)
<223> n is any nucleotide

<400> 60
tantagtctc tcggtggggg cgccaggagc tctntggtgg aggcngcccc gccggtcgcg 60
gccgcggcca acgcgacgcc cgcgctgccg gtcgtcgtgg tcgacacgca ggaggccggg 120
attcggatgg tgcacgcgct gntggcgtgc gcggaggccg tgaaacagtt gaaggnccnc 180
gcctnnnnnc ncacaanntg aaagccccgn g 211

<210> 61
<211> 369
<212> DNA

<213> Triticum aestivum

<220>
<221> misc_feature
<222> (5)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (8)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (11)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (51)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (56)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (59)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (69)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (156)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (210)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (264)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (345)

<223> n is any nucleotide

<220>
<221> misc_feature
<222> (350)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (360)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (367)
<223> n is any nucleotide

<400> 61
ggctnccncc ncgtgcacgt cgtcgacttc ggcatcaagc atgggatgca ntggcncgna 60
cttctccang ccctcgccct ccgtcccggc ggccctccct cgttccgcct caccggcgtc 120
ggcccccccgc agccggacga gaccgacgcc ctgcancagg tgggctggaa gctcgcccag 180
ttcgcgcaca ccatccgcgt cgacttccan taccgtggcc tcgtcgccgc cacgctcgcg 240
gacctggagc cgttcatgct gcanccggag ggcgaggagg acccgaacga cggagcccga 300
ggtaatcgcc gtcaactcag tcttcgagat gcaccgggct gctcncgcan cccggcgacn 360
ctggaanaa 369

<210> 62
<211> 357
<212> DNA
<213> Triticum aestivum

<220>
<221> misc_feature
<222> (6)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (57)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (177)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (235)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (238)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (251)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (286)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (293)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (294)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (295)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (296)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (328)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (331)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (332)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (333)
<223> n is any nucleotide

<400> 62
caagangcta atcacaactc cggcacattc ctggaccgct tcaccgagtc tctgcantac 60
tactccacca tgttcgattc cctcgagggc ggcagctccg gcggcggccc atccgaagtc 120
tcatcggggg ctgctgctgc tcctgccgcc gccggcacgg accatgtcat gtccgangtg 180

tacctcggcc ggcagatctg caacgtggtg gcctgcgagg gggcggagcg cacantancg 240
ccacgcagac nctgggccag tggcgtgaac cggctgggca acgccnggtt cannnnccgt 300
ccacctgggc tccaatgcct acaatcangc nnncacgctg ctggcgcctc ttcgccc 357

<210> 63
<211> 511
<212> DNA
<213> Triticum aestivum

<220>
<221> misc_feature
<222> (7)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (17)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (149)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (263)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (361)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (362)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (413)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (438)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (479)
<223> n is any nucleotide

<220>

<221> misc_feature
<222> (484)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (491)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (496)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (510)
<223> n is any nucleotide

<400> 63
tcgccantcg gcatggngcc tggccgggcc gtgatctcgc gagttttgaa cgctgtaagt 60
acacatcgtg agcatggagg acaacacagc cccggcggcc gccccggctc tccggcgaac 120
gcacgcacgc acgcacttgg aagaagaana agctaaatgt catgtcagtg agcgctgaat 180
tgcaacgacc ggctacgatc gatcgggcta cgggtggttc cgtccgtctg gcgtgaagag 240
gtggatggac gacgaactcc ganccgacca ccaccggcat gtagtaatgt aatcccttct 300
tcgttcccag ttctccaccg cctccatgga tcacccgtaa aactcctaag ccctaattat 360
nnactaacta attatgtttt aaaatgttct aattaattgg ctatgttgta atncctccaa 420
accggctcat tttcaaanat taagccacgg gcccggaact ttggtttaac aacctcccna 480
ttgnaaaatt naaatngaaa tttttggttn c 511

<210> 64
<211> 309
<212> DNA
<213> Triticum aestivum

<220>
<221> misc_feature
<222> (9)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (46)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (50)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (72)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (95)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (131)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (141)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (154)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (160)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (172)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (176)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (214)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (222)
<223> n is any nucleotide

<400> 64
gttggtggng gcgatttggg tacaaggtgc gcgcctccga catggnggan gtggggcaga 60
agctggagca gntcgagatg gccatgggga tgggnggcgt gggcgctggc gccgcccctg 120
acgacaggtt ngccacccgc nggccgcgga cacngtgcan tacaacccca cngacntgtc 180
gtcttgggtc gagagcatgc tgtcggagct aaangagccg cngccgcccc tcccgcccgc 240
cccgcagctc aacgcctcca cctcctccac cgtcacgggc agcggcggct acttcgataa 300
ccctccctg 309

<210> 65
<211> 399
<212> DNA

<213> Triticum aestivum

<220>
<221> misc_feature
<222> (7)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (13)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (17)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (24)
<223> n is any nucleotide

<220>

<221> misc_feature
<222> (37)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (45)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (46)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (55)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (60)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (61)
<223> n is any nucleotide

<220>
<221> misc_feature

<222> (87)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (108)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (123)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (130)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (135)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (163)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (176)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (233)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (347)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (350)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (370)
<223> n is any nucleotide

<220>
<221> misc_feature

<222> (378)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (379)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (383)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (386)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (399)
<223> n is any nucleotide

<400> 65
tgatggnggg agnttanggg ttanaaatgt gggggganttc cgaannggtg agganatatn 60
ntcagaagtt ggagcagatg agagatngct gatggggata gggtaggngt gggtgccggt 120
gcngcccccn agganagatt ggccacccac ttagcaagtg ganaccgtgg attacnaccc 180
cacagacctg tcgtggttgg gtttgagagc gtggtgtggg agctgaacgg gcngcggcgt 240
gcccctcccg cccgccccgc agctcaacgc ctccacctcc tccaccgtac acgggcagcg 300
gcggctagtt cgatctcccg ccctccgtcg actcctccag cagcatntan gcgctgcggc 360
cgatcccctn cccaagcnng cgnggnccga gccgtgtan 399

<210> 66
<211> 453
<212> DNA
<213> Triticum aestivum

<220>
<221> misc_feature
<222> (6)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (11)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (46)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (85)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (107)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (445)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (449)
<223> n is any nucleotide

<400> 66
tttcantttc ntccttttt cttctttttc caaccccgg cccccngacc cttggatcca 60
aatcccgaac ccgcccccag aaccnggaac cgaggccaag caaaagnttt gcgccaatta 120
ttggccagag atagatagag aggcgaggta gctcgcggat catgaagcgg gagtaccagg 180
acgccggagg gagcggcggc ggcggtggcg gcatgggttc gtccgaggac aagatgatgg 240
tgtcggcggc ggcgggggag ggggaggagg tggacgagct gctggcggcg ctcgggtaca 300
aggtgcgcgc ctccgacatg gcggacgtgg cgcagaagct ggagcagctc gagatggcca 360
tggggatggg cggcgtgggc gccggcgccg cccccgacga cagcttcgcc acccacctcg 420
ccacggacac cgtgcagtac aaccncccng acc 453

<210> 67
<211> 472
<212> DNA
<213> Triticum aestivum

<220>
<221> misc_feature
<222> (57)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (66)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (127)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (131)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (147)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (201)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (367)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (401)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (444)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (452)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (469)
<223> n is any nucleotide

<400> 67
ggacgacgac ctccgagccg accaccaccg gcatgtagta atgtaatccc ttcttcnttc 60
ccagtnctcc accgcctcca tgatcacccg taaaactcct aagccctatt attactacta 120
ttatgtntaa ntgtctatta ttgctangtg taattcctcc aaccgctcat atcaaaataa 180
gcacgggccg gactttgtta ncagctccaa tgagaatgaa atgaattttg tacgcaaggc 240
acgtccaaaa ctgggctgag ctttgttctg ttctgttatg ttcatggtgc tcactgctct 300
gatgaacatg atggtgcctc caatggtggc tttgcaattg ttgaaacgtt tggcttgggg 360
gacttgngtg ggtgggtgca tggggatgaa tattcacatc nccggattaa aattaagcca 420
tcccgttggc cgtcctttga atancttgcc cnaaacgaaa tttcccccna tc 472

<210> 68
<211> 233
<212> DNA
<213> Triticum aestivum

<220>
<221> misc_feature
<222> (4)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (9)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (12)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (28)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (31)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (36)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (41)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (42)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (46)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (54)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (56)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (60)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (63)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (92)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (157)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (161)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (173)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (184)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (195)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (198)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (200)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (205)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (213)
<223> n is any nucleotide

<400> 68
aaancctana anatatagag gcgatgtngc nccccnatca nnaacnggat tacngnaacn 60
ccngaaggag cggcggcggc ggtggcagca tnggctcgtc cgatgacaaa tatcatggtg 120
tcggcggcgg cgggggacgg ggaggaggtg cacaacnttt nggcgggact cgngtaccac 180
gtgnacggtg ccgcnctngn ggatntggcc ctngaagatg ggccacctcc aaa 233

<210> 69
<211> 200
<212> DNA
<213> Triticum aestivum

<220>
<221> misc_feature
<222> (37)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (66)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (164)
<223> n is any nucleotide

<220>
<221> misc_feature

<222> (172)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (179)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (185)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (188)
<223> n is any nucleotide

<400> 69
cggcggcccc gtggcggcat gggctcgtcc gaggacnaga tgatggtgtc ggcggcggcg 60
ggggangggg atgatgtgga ctatctgctg gcggcgctcg ggtacaaggt gcgcgcctcc 120
gacaggcgga gcccgcgcat aactggagcc gctcgagatg gccntgggga tnggcggcnt 180
gggcnccngc gcctcccccg 200

<210> 70
<211> 230
<212> DNA
<213> Triticum aestivum

<220>

<221> misc_feature
<222> (4)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (14)
<223> n is any nucleotide

<220>

<221> misc_feature
<222> (202)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (210)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (214)
<223> n is any nucleotide

<400> 70
tggngctcgg gtgncccgtg cgcgcctccg acatggcggg acgtggcgca gaactggagc 60
agctcgagat ggccatgggg atgggcggcg tgggcgccgg cgccgccccc gacgacagct 120
tcgccaccca cctcgccacg gacaccggca cacaacccca ccgacctgtc gtcttgggtc 180
gagagcatgc tgtcggatct cnacgcgccn ccgncgcccc tcccgcccgc 230

<210> 71
<211> 377
<212> DNA
<213> Triticum aestivum

<220>
<221> misc_feature
<222> (2)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (3)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (8)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (10)

<223> n is any nucleotide

<220>
<221> misc_feature
<222> (11)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (12)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (13)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (25)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (33)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (39)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (365)
<223> n is any nucleotide

<400> 71
annttgtncn nnntacatcc catgngccgc gcnatgctna aggtcgccgc ctacttcggc 60
gcaggccctc gcccgccgcg tcttccgctt ccgcccgcag ccggacagct ccctcctcga 120
cgccgccttc gccgacctcc tccacgcgca cttctacgag tcctgccccc acctcaagtt 180
cgcgcacttc accgccaacc aggccatcct ggaggcgttc gccggctgcc gccgcgtgca 240
cgtcgtcgac ttcggcatca agcaggggat gcagtggccc gcacttctcc aggccctcgc 300
cctccgtccc ggcggccctc cctcgttccg cctcaccggc gttcggcccc ccgcagccgg 360
acganaacga cgccctg 377

<210> 72
<211> 436
<212> DNA
<213> Triticum aestivum

<220>
<221> misc_feature
<222> (1)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (21)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (54)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (60)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (225)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (267)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (364)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (385)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (394)
<223> n is any nucleotide

<220>

<221> misc_feature
<222> (404)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (412)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (415)

<223> n is any nucleotide

<220>
<221> misc_feature
<222> (416)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (425)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (426)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (427)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (433)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (436)
<223> n is any nucleotide

<400> 72
nttccccggc agttaaaagc ntccacttct tccaccgtca cgggcagcgg cggntacttn 60
gatctcccgc cctcagtcga ctcctccagc agcatctacg cgctgcggcc gatcccctcc 120
ccggccggcg cgacggcgcc ggccgacctg tccgccgact ccgtgcggga tcccaagcgg 180
atgcgcactg gcgggagcag cacctcgtcg tcatcctcct catantcgtc tctcggtggg 240
ggcgccagga gctctgtggt ggaggcngcc ccgccggtcg cggccgcggc caacgcgacg 300
cccgcgctgc cggtcgtcgt ggtcgacacg caggaggccg ggattcggat ggtgcacgcg 360
ctgntggcgt gcgcggaggc cgtgnaagca gttngaaggg cctncgccgt gnatnncgca 420
acaannngga agnccn 436

<210> 73
<211> 425
<212> DNA
<213> Triticum aestivum

<220>
<221> misc_feature
<222> (3)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (11)

<223> n is any nucleotide

<220>
<221> misc_feature
<222> (196)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (274)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (369)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (370)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (371)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (379)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (394)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (402)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (414)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (423)
<223> n is any nucleotide

<400> 73
cancccgctg ntcgccacct cggcatggcg cctggccggg ccgtgatctc gcgagttttg 60
aacgctgtaa gtacacatcg tgagcatgga ggacaacaca gccccggcgg ccgccccggc 120

tctccggcga acgcacgcac gcacgcactt gaagaagaag aagctaaatg tcatgtcagt 180
gagcgctgaa ttgcancgac cggctacgat cgatcgggct acgggtggtt ccgtccgtct 240
ggcgtgaaga ggtggatgga cgacgaactc cganccgacc accaccggca tgtagtaatg 300
taatcccttc ttcgttccca gtttctccac cgcctccatg atcaccccgt aaaactccta 360
agccctatnn nttactacna ttaatgtttt aaantgttct antaattgct atgntgttta 420
ttncc 425

<210> 74
<211> 285
<212> DNA
<213> Triticum aestivum

<220>
<221> misc_feature
<222> (24)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (90)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (121)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (170)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (173)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (194)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (203)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (229)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (255)

<223> n is any nucleotide

<220>
<221> misc_feature
<222> (263)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (273)
<223> n is any nucleotide

<400> 74
tatcgaagta gccgccgctg cccntgcacg gtggaggagg tggaggcgtt gagctgcggg 60
gcgggcggga ggggcggcgg cggcacgttn agctccgaca gcatgctctc gacccaaaac 120
nacaggtcgg tggggttgta gtgcacggtg tccgtggcga gggggtggcn aanctgtcgt 180
caggggcggc gccngcgccc acnccgccca tccccatggc catctcganc tgctccagct 240
tctgcgccac ttccnccatg tcngatgcgc gcnccttgta cccga 285

<210> 75
<211> 259
<212> DNA
<213> Triticum aestivum

<220>
<221> misc_feature
<222> (10)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (13)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (17)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (18)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (45)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (48)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (158)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (169)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (205)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (218)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (224)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (231)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (237)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (242)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (258)
<223> n is any nucleotide

<400> 75
acggcgcggn ccncgcnngc ttgggagggg atcggccgca gcgcntanat gctgctggag 60
gagtcgacgg agggcgggag atcgaactag ccgccgctgc ccgtgtacgg tggaggaggt 120
ggaggcgttg agctgcgggg cgggcgggag gggcagcngc tgcacgttna gctcccacac 180
cacgtctctc aacccaacca cgacncgtct gtggggtngt aatncacggt ntccctngct 240
angtgggtgg ccaatctnt 259

<210> 76
<211> 324
<212> DNA
<213> Triticum aestivum

<220>
<221> misc_feature
<222> (158)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (161)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (217)
<223> n is any nucleotide

<400> 76
cacggtgtcc gtggcgaggt gggtggcgaa gctgtcgtcg ggggcggcgc cggcgcccac 60
gccgcccatc cccatggcca tctcgagctg ctccagcttc tgcgccacgt ccgccatgtc 120
ggaggcgcgc accttgtacc cgagcgccgc cagcagcncg nccacctcct ccccctcccc 180
cgccgccgcc gacaccatca tcttgtcctc ggacganccc atgccgccac cgccgccgcc 240
gctccctccg gcgtcctggt actcccgctt catgatccgc gagctacctc gcctctctat 300
ctatctctgg ccaataattg cgca 324

<210> 77
<211> 408
<212> DNA
<213> Triticum aestivum

<220>
<221> misc_feature
<222> (38)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (108)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (128)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (352)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (353)
<223> n is any nucleotide

<220>
<221> misc_feature

<222> (371)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (383)
<223> n is any nucleotide

<220>
<221> misc_feature
<222> (385)
<223> n is any nucleotide

<400> 77
gaccaccacc ggcatgtagt aatgtaatcc cttcttcntt cccagttctc caccgcctcc 60
atgatcaccc gtaaaactcc taagccctat tattactact attatgtnta aatgtctatt 120
attgctangt gtaattcctc caaccgctca tatcaaaata agcacgggcc ggactttgtt 180
agcagctcca atgagaatga aatgaatttt gtacgcaagg cacgtccaaa actgggctga 240
gctttgttct gttctgttat gttcatggtg ctcactgctc tgatgaacat gatggtgcct 300
ccaatgggtg gctttgcaat tgttgaacgt tttggcttgg gggacttggt gnntggtgca 360
tgggaatgaa nattccacat ccncnggaat taaaattagc ccatcccg 408

<210> 78
<211> 84
<212> PRT
<213> Arabidopsis thaliana

<400> 78
Met Lys Arg Asp His His His His His Gln Asp Lys Lys Thr Met Met
1 5 10 15

Met Asn Glu Glu Asp Asp Gly Asn Gly Met Asp Glu Leu Leu Ala Val
20 25 30

Leu Gly Tyr Lys Val Arg Ser Ser Glu Met Ala Asp Val Ala Gln Lys
35 40 45

Leu Glu Gln Leu Glu Val Met Met Ser Asn Val Gln Glu Asp Asp Leu
50 55 60

Ser Gln Leu Ala Thr Glu Thr Val His Tyr Asn Pro Ala Glu Leu Tyr
65 70 75 80

Thr Trp Leu Asp

<210> 79
<211> 87
<212> PRT
<213> Oryza sativa

<220>
<221> SITE
<222> (26)
<223> Xaa is unknown or other amino acid

<220>
<221> SITE
<222> (31)
<223> Xaa is unknown or other amino acid

<400> 79
Glu Ala Gly Gly Ser Ser Gly Gly Gly Ser Ser Ala Asp Met Gly Ser
1 5 10 15

Cys Lys Asp Lys Val Met Ala Gly Ala Xaa Gly Glu Glu Glu Xaa Val
20 25 30

Asp Glu Leu Leu Ala Ala Leu Gly Tyr Lys Val Arg Ser Ser Asp Met
35 40 45

Ala Asp Val Ala Gln Lys Leu Glu Gln Leu Glu Met Ala Met Gly Met
50 55 60

Gly Gly Val Thr Pro Pro Ala Gln Arg Met Thr Gly Ser Cys Arg Thr
65 70 75 80

Trp Pro Arg Thr Lys Phe Ile
85

<210> 80
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 80
ggcgatgaca cggatgacg 19

<210> 81
<211> 29
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 81
cttgcgcatg gcaccgccct gcgacgaag 29

<210> 82
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 82
ccagctaata atggcttgcg cgcctcg 27

<210> 83
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 83
tatcccagaa ccgaaaccga g 21

<210> 84
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 84
cggcgtcttg gtactcgcgc ttcatg 26

<210> 85
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 85
tgggctcccg cgccgagtcc gtggac 26

<210> 86
<211> 31
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 86
ctccaagcct cttgcgctga ccgagatcga g 31

<210> 87
<211> 31
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 87
tccacaggct caccagtcac caacatcaat c 31

<210> 88
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 88
acggtactgg aagtccacgc ggatggtgtg 30

<210> 89
<211> 29
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 89
cgcacaccat ccgcgtggac ttccagtac 29

<210> 90
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 90
ctcggccggc agatctgcaa cgtggtg 27

<210> 91
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 91
ttgtgacggt ggacgatgtg gacgcgagcc ttg 33

<210> 92
<211> 32
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 92
ggacgctgcg acaaaccgtc catcgatcca ac 32

<210> 93

<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 93
tccgaaatca tgaagcgcga gtaccaagac 30

<210> 94
<211> 29
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 94
tcgggtacaa ggtgcgttcg tcggatatg 29

<210> 95
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 95
atgaagcgcg agtaccaaga c 21

<210> 96
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 96
gtgtgccttg atgcggtcca gaag 24

<210> 97
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 97
aaccaccccct ccctgatcac ggag 24

<210> 98
<211> 26
<212> DNA

<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 98
cactaggagc tccgtggtcg aagctg 26

<210> 99
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 99
gctgcgcaag aagccggtgc agctc 25

<210> 100
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 100
agtacacttc cgacatgact tg 22

<210> 101
<211> 4
<212> PRT
<213> Zea mays

<400> 101
Val Ala Gln Lys
1

<210> 102
<211> 12
<212> PRT
<213> Zea mays

<400> 102
Leu Ala Thr Asp Thr Val His Tyr Asn Pro Ser Asp
1 5 10

<210> 103
<211> 13
<212> PRT
<213> Triticum aestivum

<400> 103

Leu Asn Ala Pro Pro Pro Pro Leu Pro Pro Ala Pro Gln
1 5 10

<210> 104
<211> 17
<212> PRT
<213> Triticum aestivum

<400> 104
Asp Glu Leu Leu Ala Ala Leu Gly Tyr Lys Val Arg Ala Ser Asp Met
1 5 10 15

Ala

<210> 105
<211> 51
<212> DNA
<213> Triticum aestivum

<400> 105
gacgagctgc tggcggcgct cgggtacaag gtgcgcgcct ccgacatggc g 51

<210> 106
<211> 17
<212> PRT
<213> Zea mays

<400> 106
Asp Glu Leu Leu Ala Ala Leu Gly Tyr Lys Val Arg Ser Ser Asp Met
1 5 10 15

Ala

<210> 107
<211> 5
<212> PRT
<213> Arabidopsis thaliana

<400> 107
Asp Glu Leu Leu Ala
1 5

<210> 108
<211> 4
<212> PRT
<213> Arabidopsis thaliana

<400> 108
Glu Gln Leu Glu
1